walks to connect all park features, an interpretive station in the "historic village," new restrooms at the Borden House and the amphitheater, and additional parking spaces.

Improvements to the Driving Tour. The proposed master plan rerouted the driving tour to improve views and interpretive opportunities. New driving tour stops along the periphery of the battlefield will have panoramic views of the field of action. The tour continues from the park into downtown Prairie Grove, drawing visitors to the commercial areas of town. A proposed walking/driving tour of the town will include many of the historic and architecturally significant buildings.

The master plan was completed using traditional planning methods combined and conducted within a Geographic Information System. The Arkansas Department of Parks and Tourism is currently implementing Phase I of the master plan, which includes the fee simple acquisition of approximately 203 acres of land primarily north and east of the park and the purchase of conservation/scenic easements on another 206 acres. Additionally, the ADPT is securing the "right of

first refusal" on 356.5 acres. Lands chosen for protection are highly significant, comprise viewsheds visible from the park, and are prime for interpretation. Completion of Phase I will result in a total of 1,069.67 acres protected (including the park).

The Honey Springs Battlefield Master Plan is nearing completion and was also conducted by this author and Karen Hanna, in cooperation with the Oklahoma Historical Society and the National Park Service. The master plan methodology was altered slightly from the Prairie Grove model because the Honey Springs battlefield had little existing park infrastructure or facilities. Once a standard but flexible GIS model is established for battlefield preservation and management planning, it can be applied efficiently to other sites. CAST encourages battlefield preservationists to consider this technological tool in their inventory and planning efforts.

R. Brian Culpepper is a GIS Specialist with the Center for Advanced Spatial Technologies at the University of Arkansas, Fayetteville.

## **Mapping Battlefields**

Anyone who has walked across a battlefield understands that the significance of the ground is not always apparent. A cornfield might look commonplace, for example, until someone points out that a regiment advanced across it, taking heavy casualties. Cannoneers served their guns from that unexceptional hillock. Soldiers crouched there in the sunken bed of an old mill road. Battles were ephemeral events, often occurring within the space of a few hours. Units maneuvered across the landscape, soldiers fired at one another, and soldiers died. The armies passed on, leaving a blood-stained field to be tilled or to grow into a thicket or to be built upon by the generations that followed.

Battlefield resources are often obscured by time and difficult to locate. That is why many historians dedicate years to researching a particular battle. The site of a battlefield is determined by a combination of identified historic features (e.g., structures, road traces, and stone fences), by terrain features, by archeological investigation, and by archival research in reports, memoirs, and historic maps.

Since 1990, the Cultural Resources GIS Facility (CRGIS) of the National Park Service has combined historic research and computer technology to put battlefield resources on the map. Often working directly from Civil War-era maps, CRGIS surveyors return to battlefields to find the roads, house sites, earthworks, and other features depicted by military cartographers. These features are mapped using Global Positioning Systems (GPS) technology, which is a tool to transfer field observations into a spatial database that can be manipulated by computers. The manipulation is done in a Geographic Information System (GIS), a software program that allows the user to integrate text, images, and spatial information and to analyze relationships among landscape features.

To date, CRGIS has applied this methodology on ten major battlefields, mapping in the process nearly 90 miles of surviving Civil War fortifications and countless other surviving resources. The goal of these efforts is to extract the information that historians have in their heads, place it on a map, and put it on the desktops of preservation planners and resource managers. CRGIS is building a national inventory of battlefield resources one site at a time. In the future, when a historian retires or transfers, his or her knowledge of the resources will stay behind in the computer's memory. Planners and resource managers that follow will build upon the historian's knowledge to preserve the essential battlefield landscape for future generations.

—David W. Lowe Staff Historian, CRGIS

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